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Frampton E. Ellis III

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EXAMINER

NASH, LASHANYA RENEE

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/663,911	Applicant(s) ELLIS, FRAMPTON E.	
	Examiner LASHANYA R. NASH	Art Unit 2453	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/23/09, 3/26/09</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office action is in response to the amendment filed 26 March 2009. Claims 1-25 are currently amended. Claims 1-25 are presented for further consideration.

Response to Arguments

The objection to the specification is withdrawn, in light of the amended abstract.

Applicant's arguments, see Remarks, filed 26 March 2009, with respect to the rejections of claims 1-25 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new grounds of rejection is made in view of a newly found prior art reference Force, G ["Portable data encryption approaches"-retrieved from IEEE database], as set forth below in the Office action.

Information Disclosure Statement

The information disclosure statement (IDS) submitted 26 March 2009 and 23 April 2009 have been considered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 7-21 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaw et al. (US Patent 5,754,766) in view of Force, G. ("Portable data encryption approaches"-retrieved from IEEE), hereinafter referred to as Shaw and Force respectively.

In reference to claim 1, Shaw discloses an integrated circuit personal computer employed for shared computer processing (abstract). Shaw explicitly discloses:

- An personal computer comprising (column 6, lines 37-41);
- a personal computer (column 6, lines 41-46; Figure 6-item 108) being configured to provide a wireless network connection (column 13, line 61-column 14, line 3; Figure 6-"wired or wireless interconnection techniques") to a network of said personal computers, the network including an Internet (column 1, lines 42-50);
- the personal computer being further configured to initiate a computer processing operation shared with at least one other said personal computer, and the personal computer also being configured to execute a shared computer processing operation initiated by the at least one other personal computer (column 6, lines 54-66);
- the personal computer including a microchip (i.e. single chip implementation) including a microprocessor with at least a control unit and at least one processing unit, the control unit being configured to allow a user of the personal computer to control the at least one processing unit (column 32, lines 40-52);

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- the microchip including a non-volatile memory component; the microchip including a power management component; and the microchip including active configuration of at least one circuit integrated into the microchip (column 32, line 57-column 33, line 5; Figure 9).

However, the reference fails to disclose the microchip including a firewall configured to permit access by the at least one other personal computer through the network to the least one processing unit to execute the shared computer processing operation initiated by the at least one other personal computer. Nonetheless, this would have been an obvious modification to the personal computer of Shaw to one of ordinary skill in the art at the time of the invention, as further evidenced by Force.

In an analogous art, Force discloses a microchip, namely the security processing unit (SPU), employed for network security (*The PersonaCard 100 Family*; page 417).

Force further discloses the microchip including a firewall (i.e. silicon firewall) configured to permit access by the at least one other personal computer through the network to the least one processing unit to execute the shared computer processing operation initiated by the at least one other personal computer (*The PersonaCard 100 Family*; page 417).

One of ordinary skill in the art would have been so motivated to accordingly modify the personal computer of Shaw so as to include embedded firewall so as to protect the electrical and physical attacks (*The PersonaCard 100 Family*; page 417).

In reference to claim 2, Force shows the personal computer wherein the firewall is configured during the shared computer processing operation to deny access to the at

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least one processing unit by the control unit and to the control unit by the at least one other personal computer (*The PersonaCard 100 Family*; page 417).

In reference to claim 3, Force shows the personal computer wherein the firewall is a hardware firewall (*The PersonaCard 100 Family*; page 417).

In reference to claim 4, Shaw shows the personal computer wherein the microchip includes a control and processing unit (column 32, lines 53-67).

In reference to claim 7, Force shows the personal computer wherein the active configuration is used to configure said firewall (*The PersonaCard 100 Family*; page 417).

In reference to claim 8, Shaw shows the personal computer wherein the control unit is controlled by the use of a remote controller (column 6, lines 58-66; column 32, lines 40-56).

In reference to claim 9, Shaw shows the personal computer wherein the personal computer includes one or more of a telephone, a radio, a pager, a handheld personal digital assistant, a wearable computer, a digital signal processor, an entertainment device, a game, a videocam, an optical data recording device, a camera, a household

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electronic device, a business electronic device, and an automobile (column 6, lines 44-46; column 32, lines 40-52).

In reference to claim 10, Shaw shows the personal computer wherein the personal computer is configured to establish a direct wireless connection to the at least one other personal computer within a local cluster of personal computers (column 6, lines 58-66).

In reference to claim 11, Shaw shows the personal computer wherein the microchip includes more than one said processing units (column 1, lines 42-45; column 32, lines 57-67).

In reference to claim 12, Shaw shows the personal computer wherein the microchip includes a network communications component (column 33, lines 1-5).

In reference to claim 13, Shaw shows the personal computer wherein the microchip includes a flash memory component (column 32, lines 57-67).

The reference to claim 14, Shaw shows the personal computer of claim 1, wherein the flash memory component includes a BIOS (basic input/output system) of the personal computer (column 33, lines 45-52).

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In reference to claim 15, Shaw shows the personal computer wherein the microchip includes a sound component of the personal computer (column 32, lines 40-52).

In reference to claim 16, Shaw shows the personal computer of claim 1, wherein the microchip includes a graphics component of the personal computer (column 6, lines 40-46; column 32, lines 40-52).

In reference to claim 17, Shaw shows the personal computer wherein the microchip includes a video processing component of the personal computer (column 6, lines 40-46; column 32, lines 40-52).

In reference to claim 18, Shaw shows the personal computer wherein the microchip includes an analog component of the personal computer (column 6, lines 63-67).

In reference to claim 19, Shaw shows the personal computer wherein the microchip includes a modem component of the personal computer (column 6, lines 63-67).

In reference to claim 20, Shaw shows the personal computer wherein the personal computer includes more than one said microprocessors (column 1, lines 42-45; column 32, lines 57-67).

In reference to claim 21, Shaw shows the personal computer wherein the personal computer includes at least four said microprocessors (column 1, lines 42-45; column 32, lines 57-67).

In reference to claim 24, Shaw shows the personal computer wherein the network includes a World Wide Web (column 1, lines 16-23).

In reference to claim 25, Shaw shows the personal computer wherein the network includes an Intranet (column 1, lines 42-50).

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaw and Force as applied to claim 1 above and further in view of Romig et al., (“High Performance Microsystem Packaging: A Perspective”-retrieved from ScienceDirect database).

In reference to claim 5, Shaw and Force fail to disclose the personal computer wherein the configuration is provided by the use of field-programmable gate arrays (FPGA's). Nonetheless, this was a well known feature at the time of the invention, as

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further evidenced by Romig and thus would have been an obvious modification for one of ordinary skill in the art to the personal computer as disclosed by Shaw and Force.

In an analogous art, Romig discloses integrated Microsystems implemented onto microchips (*Abstract*; page 1771). Romig further discloses wherein the configuration is provided by the use of field-programmable gate arrays (FPGA's), (page 1777, paragraph 6). One of ordinary skill in the art would have been so motivated to accordingly modify the teachings of Shaw and Force so as to implement discrete devices (i.e. chip) with increased functionality, improved reliability and decreased costs (*Introduction*; page 1771).

In reference to claim 6, Shaw and Force fail to disclose the personal computer wherein the configuration is provided by the use of micro-electromechanical systems (MEMS). Nonetheless, this was a well known feature at the time of the invention, as further evidenced by Romig and thus would have been an obvious modification for one of ordinary skill in the art to the personal computer as disclosed by Shaw and Force.

In an analogous art, Romig discloses integrated Microsystems implemented onto microchips (abstract; page 1771). Romig further discloses wherein the configuration is provided by the use of micro-electromechanical systems (MEMS), (*Introduction*; page 1771). One of ordinary skill in the art would have been so motivated to accordingly modify the teachings of Shaw and Force so as to implement discrete devices (i.e. chip) with increased functionality, improved reliability and decreased costs (introduction; page 1771).

Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaw and Force as applied to claim 1 above and further in view of Chin et al. (US Patent 5,497,465), hereinafter referred to as Chin.

In reference to claims 22 and 23, Shaw and Force fail to disclose the personal computer of claim 1, wherein the personal computer includes at least sixteen said microprocessors [claim 22] and at least sixty-four microprocessors [claim 23]. Nonetheless, this would have been an obvious modification to the personal computer of Shaw and Force for one of ordinary skill in the art at the time of the invention, as further evidenced by Chin.

In an analogous art, Chin discloses a parallel processing system which employs a processing chip (abstract). Chin further discloses wherein the personal computer (i.e. chip) includes at least sixteen said microprocessors (i.e. 64 processors), (column 10, lines 30-46). One of ordinary skill in the art would have been so motivated to accordingly modify the personal computer of Shaw and Force so as to improve operation speed and accuracy for higher speed computing (Chin; column 3, lines 45-54).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LASHANYA R. NASH whose telephone number is (571)272-3957. The examiner can normally be reached on 9am-5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LaShanya R Nash/
Examiner, Art Unit 2453
June 15, 2009

/Moustafa M Meky/
Primary Examiner, Art Unit 2457